

New all-solid-state tunable UV Ce³⁺, Yb³⁺:LiY_{0.4}Lu_{0.6}F₄ laser

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Abstract

Here we report laser test results of the new UV solid-state active medium based on a Ce³⁺, Yb³⁺:LiY_{0.4}Lu_{0.6}F₄ mixed crystal pumped by radiation from Ce:LiCAF laser. The 10-Hz pulse repetition rate Ce³⁺, Yb³⁺:LiY_{0.4}Lu_{0.6}F₄ laser yielded a maximum output power of 0.25 mJ at 311nm in non-optimized non-selective resonator with a maximal slope efficiency of 13%. Tunability from 304 to 332 nm was achieved in the selective single-prism resonator. © 2012 Pleiades Publishing, Ltd.

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